## **Recovery Plan Action Status**

Plan Name: Birdwing Pearly Mussel

Plan Status: Final Plan Date: 09-Jul-84 Lead Agency: USFWS

Lead Office; Tennessee Ecological Services Field Office 528-6481)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Birdwing pearlymussel (Conradilla caelata)	1	1.1	Continue to utilize existing legislation and regulations to protect species and habitat.	Ongoing Current	Prior to FY 1995		Tennessee Valley Authority, Tennessee Wildlife Resources Agency, Virginia Department of Game and Inland Fisheries, Region 5, Division of Ecological Services, Region 5, Endangered Species Program, USFWS Regional Office 4 - Ecological Services, Tennessee Heritage Program, USFWS Regional Office 4 - Law Enforcement, USFWS Regional Office 4 - Law Enforcement Endangered Species, Region 5 - Law Enforcement	Other: Regulations	Internal Technical Assistance	See general categories for Implementation schedules.
Birdwing pearlymussel (Conradilla caelata)	3	1.2.1	Determine species' present distribution and status.	Ongoing Current	Prior to FY 1995		Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Virginia Department of Game and Inland Fisheries, Region 5, Endangered Species Program, Tennessee Heritage Program, USFWS Regional Office 4 - Endangered Species	Research: Population Surveys	Internal Field Assistance	

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Birdwing pearlymussel (Conradilla caelata)	2	1.2.2	Characterize habitat and determine essential elements.	Ongoing Current	FY 2005		Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Virginia Department of Game and Inland Fisheries, Region 5, Endangered Species Program, USFWS Regional Office 4 - Endangered Species	Research: Habitat Requirements	Graduate Student	Note: Task costs have not been estimated for this plan. This species exists with other listed mussels in the same river systems. Thus, a task aimed at this species will benefit others. Rather than attempting to apportion the costs to each species, recovery tasks will be estimated at a later date when the plans are combined on a watershed basis for implementation.
Birdwing pearlymussel (Conradilla caelata)	2	1.2.3	Determine the extent of preferred habitat and present information in a manner which identifies areas in need of special attention.	Ongoing Current	FY 2005		Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Virginia Department of Game and Inland Fisheries, Region 5, Endangered Species Program, Tennessee Heritage Program, USFWS Regional Office 4 - Endangered Species	Research: Habitat Status	Graduate Student	Includes task 1.2.4

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Birdwing pearlymussel (Conradilla caelata)		1.3.1	Determine present and foreseeable threats to species.	Ongoing Current	Prior to FY 1995		Tennessee Valley Authority, Tennessee Wildlife Resources Agency, Virginia Department of Game and Inland Fisheries, Region 5, Division of Ecological Services, Region 5, Endangered Species Program, USFWS Regional Office 4 - Ecological Services, Tennessee Heritage Program, USFWS Regional Office 4 - Endangered Species	Management: Planning	Internal Technical Assistance	Includes tasks 1.3.2 and 1.3.3. The EPA, TDEC, VDEQ, and VDMME signed an MOU to establish a working group for coordinating efforts and enhancing communication among themselves to protect and restore the Clinch and Powell rivers. As a result, a biodiversity conservation science plan is being developed for the Clinch and Powell rivers, and agencies are partnering together to complete restoration projects in these rivers and to improve overall water quality.
Birdwing pearlymussel (Conradilla caelata)	2	1.3.4	Determine measures needed to minimize threats and implement where needed to meet recovery.	Ongoing Current	FY 2007		Tennessee Valley Authority, Tennessee Wildlife Resources Agency, Virginia Department of Game and Inland Fisheries, Region 5, Division of Ecological Services, Region 5, Endangered Species Program, USFWS Regional Office 4 - Ecological Services, Tennessee Heritage Program, USFWS Regional Office 4 - Endangered Species, TN and VA Nature Conservancy	Management: Planning	Internal Technical Assistance	See comment for 1.3.1.

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Birdwing pearlymussel (Conradilla caelata)	2	1.4.1	Solicit help in protecting species and essential habitat.	Ongoing Current	Prior to FY 1995		Tennessee Valley Authority, Tennessee Wildlife Resources Agency, Virginia Department of Game and Inland Fisheries, Region 5, Division of Ecological Services, Region 5, Endangered Species Program, USFWS Regional Office 4 - Ecological Services, Tennessee Heritage Program, USFWS Regional Office 4 - Endangered Species, TN and VA Nature Conservancy	Management: Habitat Maintenance and Manipulation	Internal Field Assistance	Includes tasks 1.4.2, 1.4.3, and 1.4.4
Birdwing pearlymussel (Conradilla caelata)	2	1.4.5	Develop and utilize information and education program (slide/tape shows, brochures, etc.) for local distribution.	Ongoing Current	Prior to FY 1995		Tennessee Valley Authority, Tennessee Wildlife Resources Agency, Virginia Department of Game and Inland Fisheries, Region 5, Division of Ecological Services, Region 5, Endangered Species Program, USFWS Regional Office 4 - Ecological Services, Tennessee Heritage Program, USFWS Regional Office 4 - Endangered Species, TN and VA Nature Conservancy	Other: Information and Education	Internal Field Assistance	Task duration is one year for development and continued implementation.

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Birdwing pearlymussel (Conradilla caelata)	2	1.5	Investigate the use of Scenic River Status, mussel sanctuaries, land acquisitions, and/or other means to protect the habitat.	Ongoing Current	Prior to FY 1995		Tennessee Valley Authority, Tennessee Wildlife Resources Agency, Virginia Department of Game and Inland Fisheries, Region 5, Division of Ecological Services, Region 5, Endangered Species Program, USFWS Regional Office 4 - Ecological Services, Tennessee Heritage Program, USFWS Regional Office 4 - Endangered Species, Toparam, USFWS Regional Office 4 - Endangered Species, TN and VA Nature Conservancy	Management: Land Use	Internal Field Assistance	
Birdwing pearlymussel (Conradilla caelata)	3	2.1	Survey rivers within species' historic range to determine availability of suitable transplant sites.	Complete	FY 1995 - FY 1999	FY 2000 - FY 2004	Tennessee Valley Authority, Tennessee Wildlife Resources Agency, Virginia Department of Game and Inland Fisheries, Region 5, Endangered Species Program, Tennessee Heritage Program, USFWS Regional Office 4 - Endangered Species	Research: Habitat Status	Contract, Species Expert	Includes task 2.2
Birdwing pearlymussel (Conradilla caelata)	3	2.3	Determine best method of establishing new populations.	Ongoing Current	FY 1995 - FY 1999		Tennessee Valley Authority, Tennessee Wildlife Resources Agency, Virginia Department of Game and Inland Fisheries, Region 5, Endangered Species Program, Tennessee Heritage Program, USFWS Regional Office 4 - Endangered Species	Research: Propagation	Internal Field Assistance	Task 2.1 - 2.3 may not be required if other populations are found in 1.2.1.

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Birdwing pearlymussel (Conradilla caelata)	3	2.4	Reestablish populations within historic range as needed to meet recovery.	Ongoing Current	FY 2000 - FY 2004		Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Virginia Department of Game and Inland Fisheries, Region 5, Endangered Species Program, Tennessee Heritage Program, USFWS Regional Office 4 - Endangered Species	Research: Reintroduction	Internal Field Assistance	
Birdwing pearlymussel (Conradilla caelata)	3	2.5	Implement same protective measures for these reestablished populations as for known populations.	Ongoing Current	FY 2007		Tennessee Valley Authority, Tennessee Wildlife Resources Agency, Virginia Department of Game and Inland Fisheries, Region 5, Division of Ecological Services, Region 5, Endangered Species Program, USFWS Regional Office 4 - Ecological Services, Tennessee Heritage Program, USFWS Regional Office 4 - Endangered Species, TN and VA Nature Conservancy	Management: Planning	Internal Technical Assistance	
Birdwing pearlymussel (Conradilla caelata)	1	3	Conduct life history studies on a need-to-know basis.	Complete	FY 1995 - FY 1999	FY 1995 - FY 1999	Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Virginia Department of Game and Inland Fisheries, Region 5, Endangered Species Program, Tennessee Heritage Program, USFWS Regional Office 4 - Endangered Species	Research: Habitat Requirements	Species Expert	

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Birdwing pearlymussel (Conradilla caelata)	3	4	Determine the number of individuals required to maintain a viable population.	Not Started			Tennessee Valley Authority, Tennessee Wildlife Resources Agency, Virginia Department of Game and Inland Fisheries, Region 5, Endangered Species Program, Tennessee Heritage Program, USFWS Regional Office 4 - Endangered Species	Work type not yet selected	Labor type not yet selected	These studies will be developed and carried out where there is a specific need for data necessary to reach recovery.
Birdwing pearlymussel (Conradilla caelata)	3	5	Investigate the need for habitat improvement and implement only where needed to meet recovery objective.	Ongoing Current	FY 2000 - FY 2004		Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Virginia Department of Game and Inland Fisheries, Region 5, Endangered Species Program, Tennessee Heritage Program, USFWS Regional Office 4 - Endangered Species	Management: Habitat Maintenance and Manipulation	Internal Field Assistance	See comment for 1.3.1.
Birdwing pearlymussel (Conradilla caelata)	2	6	Develop and implement a monitoring program.	Ongoing Current			Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Virginia Department of Game and Inland Fisheries, Region 5, Endangered Species Program, Tennessee Heritage Program, USFWS Regional Office 4 - Endangered Species	Work type not yet selected	Labor type not yet selected	

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Birdwing pearlymussel (Conradilla caelata)	2	7	Annual assessment of recovery program and modify where needed.	Ongoing Current	Prior to FY 1995		Tennessee Valley Authority , Tennessee Wildlife Resources Agency , Virginia Department of Game and Inland Fisheries, Region 5, Endangered Species Program, Tennessee Heritage Program, USFWS Regional Office 4 - Endangered Species, TN and VA Nature Conservancy	Management: Planning	Internal Field Assistance	